NESOVITREA SUZANNAE, A NEW ZONITID LAND SNAIL FROM COASTAL SOUTHERN TEXAS

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ABSTRACT

Nesovitrea suzannae *Pratt is a new zonitid land snail from leaf litter in live oak groves of Aransas County, Texas. It is distinguished from other North American* Nesovitrea *species by its diameter of 2.25 to 2.5 mm, umbilicus 16% to 21% of diameter, lack of spiral sculpture, and pinkish brown color.*

In April of 1974 a field party of the Fort Worth Museum of Science and History, making general natural history collections in southern Texas, collected a casual leaf litter sample in Goose Island State Park. When sorted some months later the sample proved to contain a small series of an undescribed land snail of the family Zonitidae. Later sampling of the same locality provided more material, including living specimens.

Nesovitrea (Perpolita) suzannae

new species

Diagnosis: a small *Nesovitrea*, 2.5 mm or less in diameter, translucent pinkish brown in color, with fewer than four whorls, umbilicus less than 22% of diameter, and without spiral sculpture.

Description: shell depressed heliciform, whorls 3 1/2 to 3 7/8, slowly increasing, periphery rounded, aperture ovate-lunate, lip simple; diameter 2.25 to 2.5 mm, height 47% to 51% of diameter; umbilicate, the umbilicus 16% to 21% of diameter. Irregular growth striae strongly developed above periphery, barely discernable on base, shell otherwise smooth, without sprial sculpture. Fresh shell translucent pinkish brown.

Atrium long, simple; penis strongly clavate, apex bluntly rounded, the slender and delicate penial retractor muscle inserted well below the apex, slender atrial end of penis without internal folds, internal walls of swollen apical half with complex internal folds forming a reticulate pattern; a membranous sheath visible at insertion of epiphallus; epiphallus entering penis will below apex, walls of epiphallus simple, without glandular thickening; vagina short; spermotheca a clavate sac, tapering slightly toward insertion. Length of penis .6 mm, length of epiphallus .6 mm. Body of living snail light gray.

Holotype: United States National Museum of Natural History, (USNM 711140); *type locality:* Goose Island State Park, 1 mile east of Lamar, Aransas County, Texas. Sifted from leaf litter in grove of coastal live oak (*Quercus virginiana* L.), 19 April 1974, W. L. Pratt, W. R. Barber *et al.*

Paratypes: deposited in the Fort Worth Museum of Science and History (FWMSH 3201), the Dallas Museum of Natural History (DMNH), and in the author's collection (WLP 1528). Additional paratypes collected on 1 December 1974 at the type locality have been deposited in the author's collection (WLP 1529) and will be distributed to major natural history museums.

Measurements:

Diameter (mm)	*Height (mm)*	*Umbilicus*	*Whorls*
(Holotype)			
2.5	1.25	.45	3 1/2
(Paratypes)			
2.45	1.2	.4	3 7/8
2.45	1.15	.4	3 7/8
2.5	1.2	.5	3 7/8
2.35	1.2	.45	3 3/4
2.45	1.15	.45	3 7/8
2.25	1.15	.45	3 3/4
2.25	1.15	.4	3 1/2

(All specimens fully mature; all measurements by ocular micrometer.)

FIGS. 1, 2 and 3. Nesovitrea suzannae *Pratt, new species. Holotype, diameter 2.5 mm.*

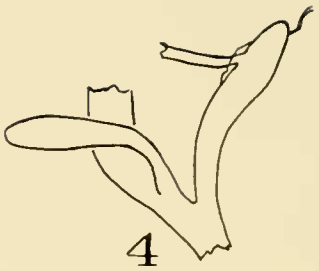

FIG. 4. Nesovitrea suzannae *Pratt, new species. Outline drawing of the anterior genitalia of a paratype, scale line equals 0.1 mm.*

Discussion: Nesovitrea dalliana (Pilsbry and Simpson) of Florida and coastal Georgia differs from *N. suzannae* in color, has more whorls (4 to 4 1/2), a wider umbilicus (22.5% to 27% of diameter), and is larger (2.66 to 3.35 mm). *N. subhyalinia* (Pfeiffer) of Mexico is larger with a more depressed shell and weak spiral striae. *N. electrina* (Gould), known from the Texas Pleistocene, and *N. binneyana* (Morse) are northern species, both much larger with somewhat wider umbilicus and different color. The penial retractor is inserted on the apex of the penis in both *N. electrina* and *N. binneyana*, in addition to numerous other differences in detail (Baker, 1930); neither of the other American *Nesovitrea* has been dissected.

A single Texas species, *Glyphyalinia roemeri* (Pfeiffer), might be confused with *N. suzannae* in drift material. *G. roemeri* is larger, with closely-spaced, regular radial grooves; fresh material is translucent yellowish white. *G. roemeri*, so far as presently known, is restricted to the uplands of central Texas, well away from the coastal range of *N. suzannae*, but might be found in river or beach drift.

Nesovitrea suzannae is known only from the type locality. The minute snails of the region are poorly known, however, and *N. suzannae* is probably widespread in the live oak groves of the Texas coastal prairie. Living snails in the original sample had been mostly young juveniles with a few lingering adults, suggesting that the species probably breeds in late winter and early spring. An additional collection made in early December, 1974 was composed of large juveniles and young adults, strengthening the evidence for a late winter breeding season. At the type locality *N. suzannae* inhabits leaf litter of a grove of coastal live oak (*Quercus virginianus* L., s. str.) with a dense understory of yaupon (*Ilex vomitoria* Ait.) and red bay (*Persea borbonia* (L.) Spreng.). The litter forms a layer about 4 cm thick on Pleistocene beach sands with little or no development of soil horizons.

Nesovitrea suzannae is named for my wife, in recognition of her assistance in the field and her patience at home.

LITERATURE CITED

Baker, H. B. 1930. The North American Retinellae. *Proc. Acad. Nat. Sci. Philadelphia* 82: 193-219.